16 September 2013

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Modernizing the E-Rate Program for Schools and Libraries, WC Docket No. 13-184

Dear Ms Dortch:

The purpose of this letter is to provide comments to the FCC proposal modernizing the E-Rate program.

Discussion. I do not envy the work that must be accomplished to achieve the stated goals. There are many variables that must be analyzed and evaluated. However, in the end, as decisions are made to change the program, the bottom line for school districts is that there is no size fits all. To optimize an E-Rate acquisition for performance and price for a given location requires a certain amount of technical knowledge and design latitude. There is nothing within the current rule set that prevents a school district form acquiring cost effective bandwidth and providing additional money will not necessarily be the solution. This highlights the two main problems that impact the adequacy or lack thereof of bandwidth for a school district: 1) Many school districts lack the experience, technical knowledge, leadership, and project management skills required to build an economical solution that meets their needs resulting in; 2) Many school district solutions are influenced by large telecommunications and technology companies. Solving these two items will result in tremendous savings to the program.

The Erate program should investigate providing guidelines for specific solutions to address this. This can be accomplished by selecting successful architectures in a variety of locations and providing as guidelines to school districts. Additionally, adding design engineers to staff to assist school districts and review architectures and sanity check bids would be useful. This would help validate or offset the influence of vendors.

Dallas ISD, the nation's 13th largest school district, is an excellent example of a success in vision, design, District prioritization, the open bidding process, and project management. The District currently provides network connectivity of 10Gb/s to every campus and provides 450Mb/s wireless access to every classroom while reducing the annual expenditures over 50% from the previous solution which provided only 100Mb/s and virtually no wireless.

Quick Wins.

Here are some suggested quick wins for the Erate program:

1. Do not fund email. With free Microsoft and Google options, there is no need to pay for this service.
2. Establish a 7 year life cycle for network infrastructure. Most recent equipment if properly specified is incredibly capable and robust.

3. Encourage open competition. Require open specification and require bids using a variety of competing vendor equipment – not several bids with the same equipment.
4. Establish standard contract language. Provide language that prevents schools from entering bad agreements, for example poor termination clauses that lock in vendors or require huge penalties, or major upgrade fees.
5. Increase transparency. Provide the success stories. Show where the money has been spent wisely or poorly.

Targeted Responses. Below are a few targeted responses that may be useful:

Affordable access to broadband

Metrics (22) – Monitoring the technical aspects of broadband (upload capacity, download capacity, latency, etc.) are useful for general consumption and for the various user entities to tune their systems and provide services. However, the ultimate goal of the technology is to increase student learning/achievement. The measurement of bandwidth as a metric is only useful to the extent that a capacity exists. How it relates to a specific educational entity is a necessary component to determine if the capacity is adequate and therefore rests with the consumers and results. A useful metric to determine adequacy of bandwidth would be percent utilization.

Internet bandwidth Goal (23 and 24) – There should not be a specific goal as required bandwidth is based on actual usage which is dynamic and differs tremendously depending on student body size, devices, and curriculum. For example Dallas ISD currently has 37.5 Megabits of Internet bandwidth per 1000 students. It is monitored continuously and increased as necessary to keep a reasonable margin. In two years (2015) maybe it will be 100Mb/s but might be 75Mb/s or 150Mb/s. The point is a goal could result in waste or be short of the need. Another points - traffic should be monitored and shaped for educational usage, a necessity to eliminate waste. Publishing actual examples of school districts bandwidth, usage, and background environment would be useful as guidelines.

Wireless Connectivity (27) – No definition should be provided, however it should be a common sense goal to design for a 1 to 1 environment as mobility and agility is the current direction of user device design. It should also be standards based and agnostic to type of device. Dallas provides 15Mb/s per student in every classroom (assuming 30 students in a class). This may be inadequate in future years but again – it needs to be monitored.

Using adoption to measure affordability (29) – No, this most likely will only highlight the technical knowledge, project management, and vision of the leadership of the school district.

Cost Effectiveness of Erate funds

WAN (79 and 80) - The use of leased WAN's should remain an option. This allows some Districts to consolidate access points and provide a more cost effective solution. It is unlikely in today's environment that a district could cost effectively build a network with life-cycle costs included compared to leasing. However, there will always be a unique exception.

Voice services (107/109) – Voice service has undergone a tremendous evolution over the last several years. However, it will still be a necessary and often expensive expense for school districts. For example fire alarms and elevators are often required to have ring generated from a redundant switch usually requiring a Telco involvement. Also, the public nature of school districts will require phone capability for parents to call. This means Districts need some sort of interface to the Public Switched Networks. Depending on the expected volume and whether access is to the teacher level, possibly a SIP connection, exchange numbers or cell phones are necessary. This service should remain an option.

<u>Ensuring equitable access to erate funds.</u>

Equitable access is difficult to define. Using the current definitions and rules, the best way to ensure equitable access is to eliminate waste. This by definition is a case-by-case analysis. However, by implementing the suggestions noted within this document equity will be a much easier task. One option that should not be pursued is a per student rate. This will most likely result in funds be expended for the sake of spending, and may result in some schools legitimately not having the necessary Erate support.

Summary. School districts have a variety of needs and situations which need be addressed. Their lack of technical knowledge often impacts developing an economical solution. Assisting Districts in the intelligent design and bidding of broadband and related services can save significant dollars which will allow more districts to benefit.

Sincerely,

Gray Salada